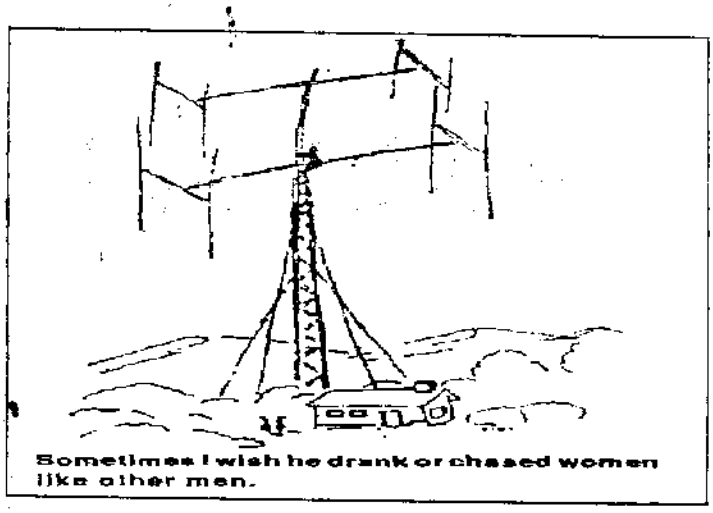
MIDSTATE AMATEUR RADIO CLUB
MARC SPARK GAP
Ham Radio News from Johnson County, Indiana
Hum Radio News from Central Indiana
Volume X No. 9 September 1994



ANNUAL MARC PICNIC

All aboard for the Mid-state ARC express! This Saturday, our September 17th meeting will hit the road. The railroad that is! Our second annual MARC family outing will take us to the Indiana Live Steam Park located deep in the wooded hills and hollers of northern Morgan county.

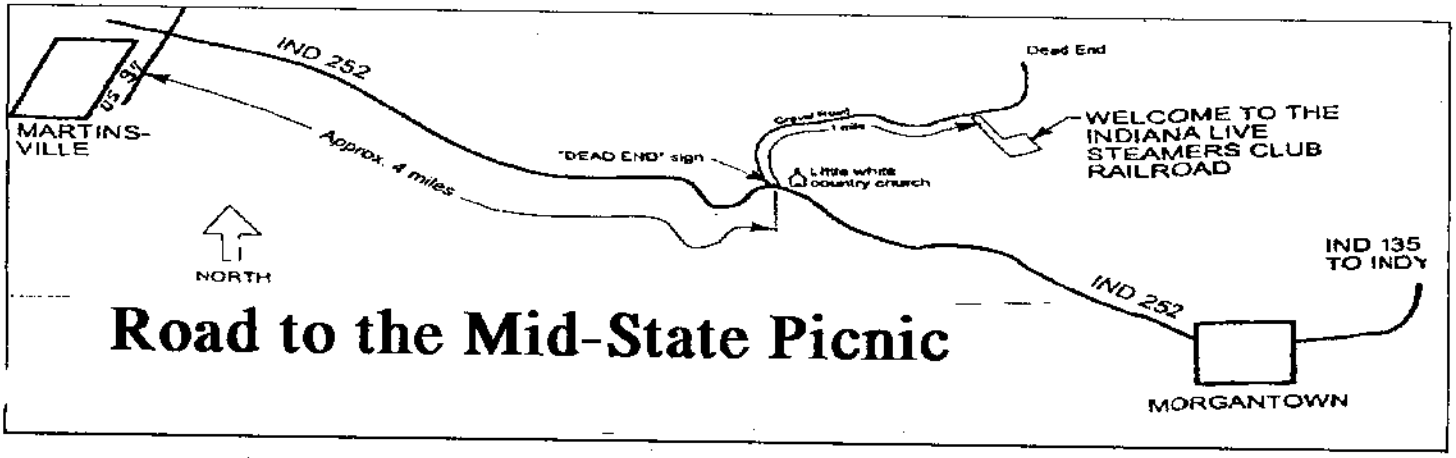
There you'll find Mt. Nebo Station. That's the home of a 3/4 mile-long miniature railroad hand-built by the Indiana Live Steam Association. What better place for kids from 5 to 65 to have a great time riding the 1/8 scale trains!

This will be a combined club meeting and family picnic. Each member is asked to bring a covered dish and their choice of beverage. The Mid-state ARC will provide the ham for the hams and their families. Club secretary Marilyn Parton, N9TUK, and Karen Vergara N9KMH will be contacting members to coordinate the pitch-in dishes. If you have not heard from Marilyn or Karen please call 535-9910.

The picnic is scheduled to start at 11am. Lunch will be served at noon. A short meeting will follow lunch as we prepare to board some of the most unique railroad trains this side of the Mississippi.

Our host for the day is the Indiana Live Steam Association. MARC club members Ron Gaertner, WB9NVM, Bruce McClary, KA9AWW and Bob Cammack, N9IMP, will be on hand to whistle us aboard. They are part of a dedicated group of model railroaders who have built their own steam engines, passenger cars, tressels and signal system. Directions to Mt. Nebo are outlined in the map below: --NT9J.

NOTE: VE testing will still be held at the EOC starting at 9:00 AM



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BENS WEATHER TIPS

By Ben Woods Channel 8 TV

September can be a very pleasant month in Indiana and for the Midwestern U.S. We're starting to experience some tastes of fall and yet summer won't quite let go of us yet.

Whatever the weather or season, we track and forecast the weather here at WISH-TV with an assortment of computers and equipment. We continue to expand our automated weather stations at area schools. This information is accessed via phone modem from WISH-TV and updated each hour. In addition, our upgraded Doppler Radar is invaluable during severe weather and many HAMS can view this as it is transmitted on the local ATV repeater.

The latest developments offer hope of combining weather data (wind, rainfall, temperature, etc.) off the automated weather stations onto the Doppler Radar display. This could really help storm trackers, WISH-TV viewers, and The Local Weather Station (a 24 hour cable local weather channel originating from WISH-TV).

Stay tuned for further technological developments as your Local Weather Station continues to expand it's network of reporting stations across central Indiana.

Recently our weather in Indiana has been mild and dry. Indianapolis averaged 71.8 degrees in August (compared to the normal of 73.2). Last month was also significantly drier than normal. Rainfall for August at Indianapolis totaled 2.59 inches (compared to the normal of 3.64"). The long range forecasts from the National Weather Service call for above normal rainfall and near normal temperatures for Indiana and much of the Midwestern and Eastern U.S.

We will have to wait and see if we get much of an Indian Summer (a period of very warm dry summer-like days occurring after the first frost).

MARC

Mid-State Amateur Radio Club

Post Office Box 836 Franklin, In. 46131

Club Repeater: 146.835

The Mid-State Amateur Radio Club meets at 8:00 AM the third saturday of each month in the Johnson County Law Enforcement Bldg. on Hospital Road in Franklin, In. All are welcome to attend.

For membership information call Mac, NV9K at (317) 736-6320

President: Roy Barnes N9PFZ	RACES: Joe Vergara KA9ZPA
V. President: Randy Shake KC9LC	ARES: Vernon Gill N9QBO
Secretary: Marilyn Parton N9TUK	Activities: Jack Parker NT9I
Treasurer: Mac McCarty NV9K	Rptr. Trustee: Dave Julian WB9YIG
Editor: Mac McCarty NV9K	Weather: Ben Woods Channel 8

FCC revision of bidding rule

The Federal Communications Commission revised its rules to give minorities and women a better chance to bid for a new crop of wireless communications licenses, including two-way paging and messaging services.

The agency also said it will hold its second airwaves auction on Oct. 26, when regional licenses for these services will go on the block.

The new plan is designed to make it easier for minorities and women to acquire new wireless communications licenses. It responds to complaints that the original rules were not adequate.

Under the plan, minority and female-owned companies will be entitled to a 40% bidding credit, rather than the existing 25%. That means a company would only have to pay 60% of the winning bid to the government, said Don Gips, deputy chief of the FCC's Plans and Policy Office. The bidding credit will be available for 10 of the 30 regional licenses, he said.

Prompting the change is the fact that none of 10 nationwide wireless licenses auctioned last month ended up in the hands of a minority- or female-owned company.

Federal regulators also changed the definition of "small business," significantly expanding the number of companies eligible to pay winning bids in installments.

Now businesses with $40 million in annual revenue qualify, Gips said. Under the original plan, companies with a net worth of less than $6 million and earning less than $2 million in profits qualified.

FCC's new role

The Federal Communications Commission, once an agency responsible for little more than renewing radio and TV licenses, suddenly is at the center of a communications revolution. Cable TV companies want to offer phone service. Local phone companies want to carry cable and send long-distance calls. The FCC is supposed to act as referee, making sure everyone plays fair.

Government to act as referee

FCC head Reed Hundt, once an anti-trust lawyer, believes free-market forces do more for consumers than government regulations do. But, sounding the New Democrat themes of the Clinton administration, he also believes the government sometimes has to make sure that businesses with monopolies or near-monopolies don't use their power to stifle competition.

Affordable prices

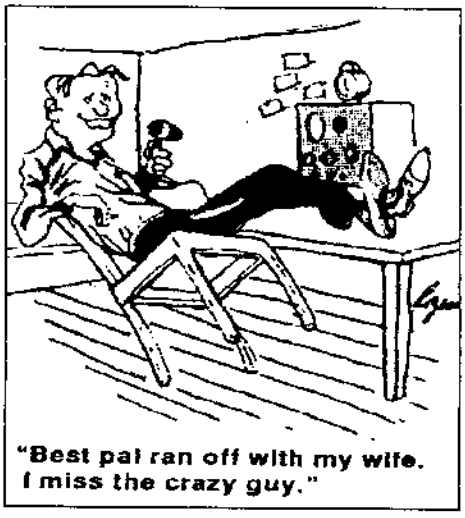
Government's role is especially important as phone companies, cable operators and long-distance carriers jostle against and sometimes align with each other to build the so-called information highway. Hundt's hopes is that by prodding communications industries to compete, the FCC can ensure affordable prices for info-highway products.

Court decisions have limited the FCC's regulatory power

Several recent court decisions have limited the FCC's ability to use its regulatory power to promote competition. Ultimately, Congress probably will have to decide the terms under which various firms compete with each other. The House passed deregulation legislation this summer. The Senate is expected to vote on a similar bill next month.

FCC to have a much bigger role

The FCC will be getting even more responsibility if Congress passes sweeping rewrites of the nation's communications laws. Hundt isn't shying away from the potential workload. "We have this opportunity to do the right thing," he says. "Let's make hay while the sun is shining."



"Best pal ran off with my wife. I miss the crazy guy."

*** An actor was in a one-man show but the critics said, "There are too many in the cast."

*** Adam said to his wife, "Eve, I wear the plants in this family."

*** Advice can be very good, especially if it doesn't interfere with your plans.

*** Aging is when you can remember what you did yesterday only by what hurts today.

*** Then there's the Alaskan traffic sign: **MUSH AND DON'T MUSH.**

*** A professor is lecturing a biology class. "The female alligator," he says, "lays 700,000 eggs at one sitting. The male eats up all but two or three of them."

A student asks, "Why does the male alligator eat so many of them?"

The professor answers, "Because if he didn't, we'd be up to our @@@ in alligators!"

*** Putting Arabian oil in Japanese cars- that's what America is all about.

*** An Army is a group of men sent out to fix up the work of diplomats.

*** How come the second baby isn't as breakable as the first?

*** In some high schools the class ring is a brass knuckle.

*** It's thrilling when the baby sitter calls you at the party and asks where you keep the fire extinguisher.

*** Don't you wish the guy who writes the bank ads about getting a loan was the same guy who makes them?

*** The manager walks to the mound, ready to yank the pitcher. The pitcher protests, "I struck this guy out the last time." "Yeah, but this is the same inning."

*** Some women go to the beauty parlor to get a face full of mud and an earful of dirt.

*** You have to understand- the Ten Commandments are not multiple choice!

*** Then there was the crooked crematorium owner who sold the ashes to cannibals as Instant People.

*** Cars have done a great deal for morality. They've completely stopped horse-stealing!

*** A trucker orders a bowl of soup. When the waitress brings it, he points to several suspicious spots. "Aren't these foreign objects?" he asks.

The waitress says, "No, these things live around here."

*** When a Doberman licks your face, he's not being friendly. He's basting you!

*** They say excercise kills germs, but how do you get them to excercise?

*** Grandma comes to visit the family for the first time. Margie, age 8, says, "You're my grandma, huh?"

"Yes, dear, on your father's side."

"Gotta tell you- you're on the wrong side!"

*** A gentleman farmer is one who has whitewall tires on his manure spreader.

*** One farmer couldn't keep his hands off his bride, so he fired them.

*** The kids in Hollywood have a big problem on Father's Day. They know what to buy, but don't know who to give it to.

*** I found out my mailman was a CIA agent today, so I told him, "You took a chance- my pit-bull is trained to attack strangers."

The mailman said, "Don't worry about your dog, he's one of us!"

*** Salesman to airline clerk: "How can anything that goes 800 miles an hour be late?"

*** The farmer has his bull attached to his plow and works the animal up and down a rocky field. His neighbor, passing by, says, "You've got a tractor. Why don't you use that?"

The farmer answers, "I'm trying to teach this bull that there's more to life than romance."

*** A farmer is hammering away when a neighbor comes by and asks, "How's the missus, Henry?"

"Not well."

"That her coughin'?"

"No, this is a new shed."

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Editorial

Within the ham community emerging political groups are beginning to ask for a larger piece of the "spectrum pie." A new group in New Zealand called "ORACLE" intends to demand at the World Radio Conference that Morse code become a world-wide "option" rather than a requirement. If adopted (regardless of what the US decides to do) it would certainly overload the already congested HF bands.

The radio manufacturers will strongly press for this codeless option. The certain increase in HF radio sales might even inspire them to finance any organized effort to influence a code-free worldwide ham community. We can only hope that the delegates at the conference will resist any such radical change!

However, if the change occurs, we will be forced to again address the problems of spectrum allocations. In digital communications alone, the expansion of modes has been so rapid that Amateurs are buying new equipment that is obsolete by the time they learn how to use it. Available frequencies for digital modes in the HF bands are already becoming scarce.

So our greatest problem continues to be the use of the available frequencies. Since we can't enlarge the spectrum we will have to find a way to use it more efficiently. We can still have faith that someone (probably a ham) will devise a method where several messages can co-exist on the same frequency at the same time! Until then we will just have to slice the "spectrum pie" into smaller servings! -NV9K

We can do it ourselves!

With the FCC crippled by reduced funding and greater responsibilities, the amateur community has almost been lost in the shuffle! The turn-around time for licenses and upgrades has become a big uncertainty! VE's jokingly now tell candidates, "Maybe by Christmas!" And there's no apparent hope for any improvement!

The obvious solution to this problem would be for the FCC to turn over Amateur licensing to a dependable non-governmental group. The ARRL could handle this, but competing radio groups would certainly want to share in such an important licensing body.

Possibly an agency answerable to the FCC could be established composed of members of the major national Amateur radio organizations. It's certainly an option worth considering. -NV9K

Do you have an opinion?

If you have an opinion about the two articles above why not send in a Letter to the editor for the next edition of the Spark-Gap?

How to sink a ground rod

By Ralph Grover, NS2S

When it was time to install the ground rods for my station some years ago, I climbed up a wobbly step ladder and pounded away at the wobbly rods with a sledge hammer until they sank to the right level. Their tops ended up battered like circus tent pegs!

I recently observed the installation of a ground rod for the new N3VT repeater, and found out how the pros do it. Don, N2GHV, who puts in lots of ground rods in his business, chucked the rod into a heavy-duty half-inch electric hammerdrill, and zipped it into the ground slick as a whistle in 30 seconds-no banging and no cauliflower deformation of the top of the rod!

from the "Peconic Amateur Radio Club Newsletter" - Ralph Grover, NS2S, Editor.

Do you know this Marc club member?

Last month the Mystery Club member was Jack, NT9J. If you would like to be a mystery club member send a photo to MARC Box 836, Franklin 46131. It will be mailed back to you.

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Hams to get 11 meters?

If you aren't on packet, then you may be unaware that a growing number of hams are sounding a call to arms. They aim to take part of 11 meters back from the Citizen's Radio Service and turn it over to Novices and no-code Technician-class Amateurs.

It's no joke! Those involved are serious. They intend to do it right-the political way- by petitioning the FCC to make the changes to the rules governing both the Amateur and Citizen's Radio services.

The debate started on packet radio, when Tom Saluti, N1KIO, of Durham, New Hampshire posted an "all USA bulletin on the subject. Tom's idea has quickly attained a great amount of support. Here's the story.

In his posting, N1KIO called the 11 meter band "a wasteland even the government can't use." This, Tom says, is because "freeband" illegal operators have taken over- from 26 to well above 28 MHz- into the 10 meter ham band.

Tom noted that, since the FCC has recently taken frequencies away from Amateur Radio, it might be time for them to give some spectrum back by abandoning their efforts to handle the 11 meter problem and returning 27.500 to 28.000 to the Amateur Radio Service.

He said Amateurs can solve the mess by permitting Novices and Techs to run CW and data from 27.500 to 27.700 and voice modes above 27.700.

Ever since its posting, N1KIO's bulletin has been controversial- not the idea of running the illegal operators off 11 meters, but getting the spectrum reassigned as an Amateur band. Almost everyone who commented wants it to happen. The debate has been over *how.*

Many hams apparently harbor high-level animosity toward the "freeband" illegals. And they question how we can get the FCC to take the request seriously.

One response gaining suport suggests circulating a petition by packet radio. After a few months, a printout with callsigns and signatures could be sent as a rule-making request to the Private Radio Bureau.

No matter what the outcome, one thing is certain: a fire is being fanned by no-code hams who want access to high-frequency spectrum. The fire is growing, its cinders are falling in "freeband", and Radio Amateurs are becoming political. Stay tuned!

by Bill Pasternak, WA6ITF

New signs of the times

Outside a Hong Kong dress shop: "Ladies have fits upstairs"

In a Zurich hotel: "Because of the impropriety of entertaining guests of the opposite sex in the bedroom, it is suggested that the lobby be used for this purpose."

In the window of a Swedish furier: "Fur coats made for ladies from their own skin."

In a Copenhagen airline ticket office: "We take your bags and send them in all directions."

In an Acapulco hotel: "The manager has personally passed all the water served here."

From a Japanese information booklet about using a hotel air conditioner: "Cooles and Heates: If you want just condition of warm in your room, please control yourself."

From a brochure of a car rental firm in Tokyo: "When passenger of foot heave in sight, tootle the horn. Trumpet him melodiously at first, but if he still obstacles your passage, then tootle him with vigor."

In a Bucharest hotel lobby: "The lift is being fixed for the next day. During that time we regret that you will be unbearable."

In a Japanese hotel: "You are invited to take advantage of the chambermaid."

In the lobby of a Moscow hotel across from a Russian Orthodox monastery: "You are welcome to visit the cemetery where famous Russian and Soviet composers, artists and writers are buried daily except Thursday."

On the menu of a Swiss restaurant: "Our wine leave you nothing to hope for"

In a Bangkok dry cleaners: "Drop your trousers here for best results"

Hams aid a sea rescue

Mississippi Amateurs jumped into action when one of their own found himself in grave danger hundreds of miles out to sea.

Larry Hooker, KB5ZNY, and a companion had delivered supplies to Honduras for a non-denominational missionary out-reach group. They were returning March 2 aboard *Off the Hook*, a 35 foot twin-engine sailboat, when they encountered a severe spring storm. With 25 foot seas crashing over the deck, the craft soon began taking on water.

The situation turned ominous when *Off the Hook* lost her port engine and a critical bilge pump. At 6 AM March 3, she began transmitting a distress call on 3.862.5 kHz, the frequency of several Mississippi nets. In a turn of good luck, the Magnolia Section Net opened at that very instant.

Several amateurs in Mississippi heard the distress call. Net control Merlin Bechtel, KB5NEJ, immediately put the net into emergency session status.

It was determined that Hooker's position was 220 miles SSE of Mobile. Alerted by the hams, the Coast Guard Rescue Center in New Orleans came on frequency to establish communications with *Off the Hook*, and to coordinate the air-drop of a replacement pump.

W5HTV, an experienced seaman, provided Hooker with technical advice on methods of pumping. They determined that *Off the Hook's* hull was split, news that only increased the drama.

The Coast Guard dispatched a twin-engine jet aircraft with another pump, and informed Hooker that a commercial vessel, Tern Arrow, was being diverted in an effort to locate and assist him. Further, the Coast Guard was sending a cutter from Mobile.

The plan was for Tern Arrow to get a tow line to *Off the Hook* and keep it afloat until the cutter arrived. At that point just 90 minutes had elapsed since Hooker had transmitted his distress call. To the hams monitoring the net, those minutes seemed an eternity.

With the new pump installed, Hooker managed to keep the vessel afloat until late afternoon when the Coast Guard cutter arrived. The cutter attached a towline and began towing toward land 200 miles to the northwest.

But during the night *Off the Hook's* split hull began breaking up. Hooker and his companion evacuated quickly and, from the cutter's deck, sadly watched the sailboat sink beneath the waves in a matter of minutes.

Hooker saved only his HF rig and a satellite navigation receiver; the Coast Guard didn't even recover its pump. *Off the Hook* lies in 5,400 feet of water-far beyond any possibility of recovery.

The cutter and its passengers arrived at Mobile at 4 PM.

from the April 94 "Magnolia Report" Hank Downey, K5QNE, editor.

Antenna party

What appeared to be a fire drill last Saturday morning at the Sheriff's office turned out to be a ham radio project. With the assistance of the Franklin Fire Department's aerial truck RACES operations director Bill Brinkman, KA9ZMU, and Dave Reneau, AA9KT, scaled the side of the 180 foot radio tower.

This was the first of a multi-part project to repair and install radio antennas for the equipment in the EOC radio room.

First on the list was the ATV receiver antenna. The 14-element 70cm beam was removed, inspected and remounted onto a tower extension to improve the reception. A pre-amp was also installed which will give the EOC a perfect, P-5 picture of weather radar.

Assisting with the project was RACES director Joe Vergara, KA9ZPA, J.R. Osborne, KB9HSE, Steve Benson, N9NZI, Mac McCarty, NV9K, Jack Parker, NT9J, and new club president Randy Shake, KC9LC.

Future plans call for the installation of a dual-band, 2-meter/70cm antenna, a 6-meter antenna and the elevation of the 2-meter antenna for packet. More volunteers will be needed. See Bill or Joe if you can help.

Q: What's a thesaurus?

A: A dinosaur with a large vocabulary.

Journalist: a person with nothing in mind and the power to express it.

Congress set to vote on hambill

Amateur Radio-related legislation remains alive as the 103rd Congress winds down. Still visible are provisions from House Joint Resolution 199 and its Senate companion, Senate Joint Resolution 90.

The bills are "sense of the Congress" resolutions urging the Federal Communications Commission to adopt regulations that encourage the use of new technology and calling for "reasonable accommodation" for the use of Amateur Radio in homes, automobiles and public areas.

The house bill, sponsored by Congressman Mike Kreidler of Washington, has been added to 'he FCC Authorization Act, H.R. 4522, by the House Telecommunications Subcommittee. H.J.Res 199 had 245 co-sponsors by the time it was considered by the committee. It also has passed the House Energy and Commerce Committee and is slated for floor action. The Senate version has been reported out of the Senate Commerce Committee as a "stand alone" bill.

Congress watchers agree that this is an unpredictable year," said Steve Mansfield, N1MZA, ARRL Manager of Legislative and Public Affairs. "Health care, crime bills, the big telecommunications bills, and a few other 'mega' issues have captured Congress's attention, to the exclusion of almost everything else. As a result, a lot of special interests got left in the dust this year."

"It's a credit to the effectiveness of hams who wrote to their senators and representatives that these powerful committees have given us a fair hearing and considered our bills."

from the August ARRL Letter.

Hurricane list of frequencies

Here are some of the major net and emergency frequencies (in kHz) of interest during the summer/ fall hurricane season:

3815 Inter-Island 75 meter net

7165 Antigua/Antilles Net

14275 Amateur Radio/Red Cross

14283 Health and welfare traffic

14303 Health and welfare traffic

14316 Maritime Mobile Net

14325 Hurricane Watch Net

14185 Caribbean Emergency

7115 Caribbean Maritime Mobile

3808 Caribbean Weather

21400 Transatlantic Maritime Mobile

7268 Waterways

The ARRL Net Directory lists many state and regional nets that also carry storm-related traffic. As always, never transmit on these nets unless you are called upon to do so!

FCC will sell frequencies

The FCC has reversed an earlier decision that granted three companies free licenses for new wireless services.

The earlier decision was based on a so-called "pioneer's preference," in recognition of the companies' technological contributions to the field. The companies, which planned a wide range of wireless personal communication services, told the *New York Times* that the reversal could cost them hundreds of millions of dollars.

The FCC said that it has "learned a lot" from recent auctions of frequencies and decided that it was unfair to award a handful of free licenses when others would have to pay for frequencies.

The FCC plans to sell at auction in December these frequencies, which include 2-GHz personal communications services (broadband PCs); local multipoint distribution service (LMDS);and low Earth orbital satellite service in the 1.6/2.4 GHz band (so-called "Big LEOs).

The FCC said that its earlier "pioneer's preference" decisions had been tentative, before Congress formally authorized frequency auctions.

The three companies - American Personal Communications (controlled by *The Washington Post*), Cox Enterprises of Atlanta, and Omnipoint Communications - were given two options for paying for their frequencies, based on the outcome of the December auction.

from the August ARRL Letter

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Jargonography

by Bill Beverly, WG8J

Jargon has been defined as *nonsensical, incoherent, or meaningless talk.* That often fits what one hears on a repeater. Another definition, *the specialized or technical language of a trade, profession, or a similar group* may fit even better.

As a schoolteacher, I can tell you that the education racket has more jargon than anyone. We think it makes us sound like doctors, or lawyers. My student teacher is an "intern." I am her "mentor." Kids who steal "fail to identify their own property." Kids who fight "settle their differences by socially unacceptable means."

It makes me ill. When I go to a teacher's meeting-excuse me, a "classroom educator in-service action group," - I sometimes don't know what they are talking about, or care.

In Amateur Radio, we too often use jargon that impedes communication with ordinary people, while making us sound like we disdain speaking English.

Why say "twisted pair" when "phone" is shorter and clearer? Why say "I'm destinated" rather than "I'm home" or "I've arrived"? Why use Morse Q-signals on FM? Do we think using jargon indicates our membership in some in-group? Ham radio isn't exclusive, folks. Anyone who passes some simple exams can be a ham. You want a ecret society? Join a lodge!

Let's reduce our dependence on inappropriate jargon. Q-signals are great on CW; keep them there. Phonetics are useful under marginal conditions, but silly otherwise.

Legitimate electronic and radio vocabulary is fine; we need not replace VFO with *that little frequency-changing thing in the radio.* And let's continure to use 73. It's been around longer than any of us.

When I demonstrate Amateur Radio in the classroom, I want the kids who hear us on the bands to view us as intelligent, interesting people-a group that would be fun to join. I do not want them to see us as weirdos who talk funny to keep "outsiders" at arm's length.

from Kalamazoo "Chips and Clicks and Spurious Emissions" and ARNS

Baubles, bauds, bits, & bangles

by Jim Piper, KD6YKL

Back in the days of yore (not mine, yore), when digital communications meant interrupted continuous wave (CW), folks measured transmission rates in words per minute. Then came teletype and the favored "yardstick" for information transmission rates became the *baud* (after French keyboard pioneer Emile Baudot, first cousin of Bridget Baudot).

As speed advanced to 300 baud, that measure of transmission rate over a digital communications link (which could be a telegraph wire or a radio path) served well. But technology continued to press forward. As rates passed 1200 bits per second (bps), 300 baud began to seem snailish. (When I served in "Uncle Sam's Canoe Club" in the 60's, the Pacific Fleet HF broadcast in 65-baud FSK was "high-speed communications.")

Today's fiber-optic lines allow data rates as high as 2.5 gigabits/second (2,5000,000,000 bps). Even our relatively narrow UHF ham bands can easily carry data at 9600 bps.

Most hams use baud to describe data rate regardless of the transmission medium. Yet confusing baud and bps clouds the discussion of data transmission rates. (It's a little like asking what time it is when you want to know is how much time is left.)

The problem with the indiscriminate use of the term *baud* stems from a misunderstanding of its meaning. According to Webster, the IEEE, and the ARRL, a baud is *a unit of signaling speed equal to one discrete condition or event per second.* In CW, a "discrete signaling condition" occurs each time a radio transmitter is keyed on or off.

How does this relate to baud? If you key your transmitter at the rate of 5 words per minute and the average word length is six characters, and each character has an average of three dits and dahs, you are producing 180 symbols per minute (5 WPM x 6 x 6). You could say that you were transmitting CW at 6 baud because you are transmitting an average of 360 discrete

conditions per minute, or 6 per second. Of course, we normally don't describe CW rates in baud, but in words per minute.

One often hears packet radio and voice-frequency modems discussed in terms of baud. The actual rate at which data (i.e., digital information) flows depends on the ratio of bits per baud. Baud rate and bit rate are equal only at speeds of 300 baud and below, and only for FSK modulation without parity bits.

Other modulation schemes such as phase-shift keying (PSK, BPSK, and QPSK), CLOVER, etc., stuff more bits into each baud. That's why, for the sake of accuracy, I encourage you to use the much less confusing bits-per-second measure rather than the baud.

PS: Just kidding about the baubles and bangles.

from the May 94 Santa Cruz "short skip" and ARNS

SSTV program creates interest

Slowscan TV made it's debut at the August MARC meeting. And guest speaker Tom Jenkins, N9AMR, changed some minds; one picture at a time.

Before the meeting many club members expressed little or no interest in this developing aspect of ham radio. Tom Jenkins not only piqued our interest but painted a perfect picture about the thrill of sending live pictures across the country or around the world via HF radio.

He said that SSTV is not new to amateur radio. It's been around for over 50 years. But, new computer technology has made it better quality and more fun to experiment with.

Fast-scan TV signals take up more that 5 Mhz of bandwidth. It produces 30 frames per second. By comparison slow-scan TV is, as it's name implies, a TV signal with a very slow scan rate. Using a more narrow audio signal, the pictures take eight seconds to send one SSTV frame.

Over the past 10 years Tom has become one of the most recognized experts in slow-scan TV. He has developed computer software that allows the user to shape, mold and artfully manipulate the individual pictures that he receives and sends.

Tom explained that it only takes a computer, monitor, HF rig, and a slow-scan receiver to make and receive beautiful pictures around the world. It also helps to have a General Class amateur radio license. Certainly, another good reason to upgrade and continue enjoying all of the aspects of amateur radio! -NT9J

His master's Vox

Ronaldo, PU2RRM, of the Dominican Republic, has a dog that likes to visit the shack because when he barks it turns on the transceiver's red Transmit light.

Ronaldo calls him a "VOX terrier." from September 94 QST

More picnic information

By Karen Vergara N9KMH

The second annual picnic/meeting at the Mt. Nemo miniature railroad is upon us. It's at September 17th at 11 AM. Ham and buns, paper plates and dinnerware are to be provided by the club.

Each familly is asked to bring a covered dish to share. This would be salad, vegetable, fruit, desert or drink. Rather than call 100 plus members this year, we are asking all who came last year to bring a covered dish of the same food category as you did last year.

For instance if you brought green beans last year, bring a vegetable dish this year. If you brought potato salad last year then bring some sort of salad this year.

For those who missed last year, please just come and bring whatever you like to fix. I'm sure we'll have a good variety and lots of yummy things to eat.

-Karen N9KMH and Marilyn N9TUK

See you there!